1 2 3 4 UNITED STATES DISTRICT COURT WESTERN DISTRICT OF WASHINGTON 5 AT SEATTLE 6 GROUP14 TECHNOLOGIES, INC., 7 Plaintiff. 8 C22-1354 TSZ v. 9 **ORDER** NEXEON LIMITED, 10 Defendant. 11 THIS MATTER comes before the Court on a motion for summary judgment, 12 docket no. 85, brought by defendant Nexeon Limited ("Nexeon"). Having reviewed all 13 papers filed in support of, and in opposition to, the motion, the Court enters the following 14 Order. 15 **Background** 16 Plaintiff Group 14 Technologies, Inc. ("Group 14") and defendant Nexeon compete 17 in the market of silicon-carbon ("Si-C") composites for use in the anodes of rechargeable 18 lithium-ion batteries. ¹ In 2017, Group14 and Nexeon exchanged certain materials and 19 20 21 ¹ A "prevalent choice" of material for rechargeable battery anodes is graphite, a crystalline form of carbon. See Martin Decl. at ¶ 8, App'x A to Pl.'s 5th Supp. Resp., Ex. 9 to Gershenson Decl. (docket no. 99-4 at 51). Graphite anodes, however, have "limited storage capacity for lithium." 22 <u>Id.</u> An "extensively researched [alternative] design" involves using silicon, which "has 20 times the lithium storage density of graphite." *Id.* 23 ORDER - 1

information pursuant to a Materials Transfer and Mutual Non-Disclosure Agreement effective as of April 4, 2016 ("NDA"), Ex. 1 to Compl. (docket no. 1-1), and they 3 discussed merging their businesses, see Ex. 13 to Gershenson Decl. (docket no. 100-2). They could not, however, reach consensus on the terms of an acquisition or joint venture, 4 5 see Ex. 7 to Lindberg Decl. (docket no. 88-6), and they eventually went their separate ways. Both Group14 and Nexeon have been granted patents for composites comprised of 6 7 a porous carbon framework with silicon deposited within its micropores or mesopores.² 8 See United States Patents Nos. 10,147,950 ("'950 Patent") & 10,454,103 ("'103 Patent") 9 (both issued to Group 14); see also United States Patents Nos. 10,424,786 ("'786 Patent") 10 & 10,508,335 ("'335 Patent") (both issued to Nexeon). 11 In this action, Group 14 has sued Nexeon for (i) misappropriation of trade secrets in violation of the Defend Trade Secrets Act of 2016 ("DTSA"), 18 U.S.C. §§ 1831-39; 12 13 (ii) misappropriation of trade secrets in violation of Washington's Uniform Trade Secrets 14 Act ("UTSA"), RCW Chapter 19.108; (iii) unjust enrichment; and (iv) breach of contract. 15 See Compl. at ¶¶ 47–75 (docket no. 1). Nexeon has asserted a counterclaim for tortious interference with business expectancy. See Ans. & Am. Countercl. at ¶ 55–63 (docket 16 no. 47).³ During this litigation, the parties have presented two discovery motions 17 18 ² A "micropore" is a pore of less than 2 nanometers ("nm") in diameter, a "mesopore" is a pore 19 of 2-50 nm in diameter, and a "macropore" is a pore of greater than 50 nm, but less than 100 nm, in diameter. '786 Patent at 5:16-20; see also '950 Patent at 10:28-31; '103 Patent at 10:15-18. 20 ³ In its amended responsive pleading, Nexeon asserted three counterclaims: tortious interference 21 with business expectancy, violation of Washington's Consumer Protection Act ("CPA"), and actual or attempted monopolization. Ans. & Am. Countercl. at ¶¶ 55–80 (docket no. 47). By 22 Order entered November 1, 2023, the Court granted in part and denied in part Group 14's motion to dismiss Nexeon's counterclaims; Nexeon's CPA counterclaim was dismissed with prejudice 23

pursuant to Local Civil Rule ("LCR") 37. By Order entered November 1, 2023, the Court concluded that Group14 had not identified its asserted trade secrets "at a level of particularity that is reasonable under the circumstances," and it denied Group14's motion, as set forth in the first LCR 37 submission, to compel Nexeon to answer Group14's discovery requests. <u>See</u> Order at 21–25 (docket no. 56). By Order entered March 26, 2024, after thoroughly reviewing the "additional thirty-six (36) pages of images, diagrams, charts, graphs, tables, bulleted presentation slides, and verbiage supplied by Group14 in its [third] supplemental interrogatory response," the Court ruled, with respect to the second LCR 37 submission, that Group14 still had not supplied the "level of detail necessary under the circumstances to provide reasonable notice of its trade secrets." <u>See</u> Order at 5 (docket no. 83).

In its Order refusing to require "Nexeon to open its filing cabinets . . . for Group14 to peruse," <u>id.</u>, the Court directed the parties to file a joint status report proposing a trial date and addressing whether discovery should be stayed until the viability of Group14's trade-secret-based claims could be assessed. <u>Id.</u> at 25. In the Joint Status Report filed on April 25, 2024 ("JSR"), Group14 asserted that dispositive motion practice was premature and a stay of discovery was inappropriate. JSR at 2 (docket no. 84). In Group14's view, Nexeon had produced "only self-selected, self-serving documents" and had not offered any Nexeon-affiliated witness for deposition. <u>Id.</u> The JSR indicated that Group14 would

and its antitrust counterclaim was dismissed without prejudice and with leave to amend. <u>See</u> Order at 6–14 & 26 (docket no. 56). Nexeon did not file a second amended pleading, and the dismissal of its antitrust counterclaim is now law of the case. Thus, Nexeon's only remaining counterclaim is for tortious interference with business expectancy.

be serving supplemental discovery responses, and it would seek a continuance under Federal Rule of Civil Procedure 56(d) of any motion for summary judgment brought by 3 Nexeon. *Id.* at 2–3. 4 In contrast, Nexeon reported that it had produced 2,223 documents (13,956 pages) 5 in discovery and had taken three depositions of Group14-affiliated witnesses, while Group14 had "never requested any depositions from Nexeon." *Id.* at 4. Nexeon took the 6 7 position that discovery should be stayed and that the trial date and related deadlines 8 should not be reset until after the Court resolved Nexeon's dispositive motion. *Id.* On 9 the same day that the JSR was submitted, Nexeon filed the now pending motion for 10 summary judgment. Also on the same day that the JSR was submitted, Group14 served 11 its "fifth" (actually fourth⁴) supplemental discovery responses. <u>See</u> Gershenson Decl. at ¶ 11 & Ex. 9 (docket nos. 91 & 99-4 at 44–46); see also Lindberg Supp. Decl. at ¶ 19 & 12 13 Ex. P (docket nos. 118 & 118-16). 14 Group14's "fifth" supplemental interrogatory response listed fifteen (15) alleged 15 trade secrets, labeled "A" through "O," see Ex. 9 to Gershenson's Decl. (docket no. 99-4 16 at 44–45), and appended as support the declaration of Group 14's expert Steve W. Martin, 17 Ph.D. dated April 25, 2024, see id. (docket no. 99-4 at 47–339). In its reply brief in 18 19 ⁴ Group14 has apparently misnumbered its most recent supplemental response. Group14's expert has represented that he reviewed Group14's "fourth" supplemental response dated 20 January 17, 2024, see Martin Decl. at ¶ 14, App'x A to Pl.'s 5th Supp. Resp., Ex. 9 to Gershenson Decl. (docket no. 99-4), but Group14's "fifth" supplemental response does not 21 contain the substance of any "fourth" supplemental response, see Ex. 9 to Gershenson Decl. (docket no. 99-4 at 2-45), and the record contains no separate document identified as a "fourth" supplemental response. Nevertheless, to avoid any confusion, the document at issue, which was 22

filed as Exhibit 9 to the Declaration of Adam Gershenson, docket no. 99-4, will be identified

herein as Group 14's "fifth" supplemental response.

support of its motion for summary judgment, Nexeon argues that the Court should disregard Group 14's "fifth" supplemental response because it was served after Nexeon 3 filed its motion. Def.'s Reply at 3 (docket no. 120). Nexeon also contends that Group 14's "fifth" supplemental response fails to identify trade secrets for the following 4 5 reasons: (i) it does not provide the requisite "reasonable particularity"; and (ii) it refers to matters that were, at the relevant time, in the public domain as a result of Group 14's 6 7 patents, published applications, and submissions to the United States Patent and Trademark Office ("PTO") during patent prosecution.⁵ See id. at 4–6. Moreover, with 8 9 respect to some of the alleged trade secrets, Nexeon asserts that Group 14 has not 10 demonstrated that it ever provided such information to Nexeon. Id. at 5; see also Ex. B to 11 Lindberg Supp. Decl. (docket no. 122) (containing a nine-page chart detailing Nexeon's grounds for disputing the trade secret status of each item (labeled A–O) enumerated in 12 13 Group14's "fifth" supplemental response). 14 As promised in the recent JSR, Group14 has invoked Rule 56(d), see Pl.'s Resp. at 15 28 (docket no. 94), but its request to defer considering Nexeon's motion for summary 16 judgment and to allow time for further discovery is DENIED because, as explained later 17 in this Order, see infra Discussion § D.3, Group 14 has not sufficiently identified any 18 19 ⁵ Although Nexeon has relied on the prosecution history of Group 14's '103 Patent, it has not provided copies of the documents that it has cited. The prosecution history is, however, publicly

²⁰

available, and the Court has taken judicial notice of the various Office Actions, replies thereto, 21 and declarations relating to the '103 Patent. See Uniloc USA, Inc. v ADP, LLC, 772 F. App'x 890, 898 n.3 (Fed. Cir. 2019) ("The prosecution history is part of the intrinsic record of the patent and is a 'matter[] of public record.'... It is thus subject to judicial notice...." 22 (alteration in original, quoting <u>Data Engine Techs. LLC v. Google LLC</u>, 906 F.3d 999, 1008 n.2 (Fed. Cir. 2018))).

trade-secret, and thus, it is not entitled to engage in additional discovery to bolster its trade-secret-based claims. The Court therefore proceeds to consider the merits of Nexeon's motion for summary judgment, in which it argues *inter alia* that: (i) Group14's trade-secret-misappropriation claims should be dismissed because they were not timely brought under the DTSA or the UTSA; (ii) Group14's unjust-enrichment claim should be dismissed because it is not cognizable; and (iii) Group14's breach-of-contract claim should be dismissed because Group14 has not identified any wrongful disclosure or use of its confidential information by Nexeon. For the reasons set forth below, the Court agrees with Nexeon on all grounds.

Discussion

A. Summary Judgment Standard

The Court shall grant summary judgment if no genuine issue of material fact exists and the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(a). The moving party bears the initial burden of demonstrating the absence of a genuine issue of material fact. *Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986). To survive a motion for summary judgment, the adverse party must present "affirmative evidence," which "is to be believed" and from which all "justifiable inferences" are to be favorably drawn. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 255 & 257 (1986). When the record, taken as a whole, could not, however, lead a rational trier of fact to find for the non-moving party on matters as to which such party will bear the burden of proof at trial, summary judgment is warranted. *See Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587 (1986); *see also Celotex*, 477 U.S. at 322.

B. <u>Misappropriation of Trade Secrets</u>

As a matter of law, Group14's DTSA and UTSA claims are time barred. The Defend Trade Secrets Act allows "[a]n owner of a trade secret that is misappropriated . . . [to] bring a civil action . . . if the trade secret is related to a product or service used in, or intended for use in, interstate or foreign commerce." 18 U.S.C. § 1836(b)(1). A civil action under the DTSA "may not be commenced later than 3 years after the date on which the misappropriation with respect to which the action would relate is discovered or by the exercise of reasonable diligence should have been discovered." *Id.* at § 1836(d). Washington's Uniform Trade Secrets Act also requires that an action be brought "within three years after the misappropriation is discovered or by the exercise of reasonable diligence should have been discovered." RCW 19.108.060. Under Washington law, when a plaintiff invokes the discovery rule to counter a statute of limitations defense, the plaintiff bears the burden⁶ to show that facts constituting the cause of action were not

15

16

17

18

19

20

21

22

1

2

3

4

5

8

9

10

11

12

13

Constitution or treaties of the United States or Acts of Congress otherwise require or provide,

¹⁴

⁶ Group14 cites a Federal Circuit decision for the proposition that a <u>defendant</u> accused of trade secret misappropriation bears the burden of "negat[ing] the discovery rule by proving as a matter of law that no issue of material fact exists concerning when the plaintiff discovered or should have discovered its cause of action." Pl.'s Resp. at 25 (docket no. 94) (quoting <u>Raytheon Co. v.</u> Indigo Sys. Corp., 688 F.3d 1311, 1318 (Fed. Cir. 2012)). Group14's reliance on Raytheon is misplaced. In *Raytheon*, the misappropriation claim was brought under state law (in conjunction with patent infringement claims that were settled), and the Federal Circuit applied Texas law in concluding that the district court erred in granting summary judgment. See 688 F.3d at 1314 & 1316–18. Thus, Raytheon does not control with respect to either the UTSA claim, which is governed by Washington law, or the DTSA claim, as to which federal law or, in the absence thereof, the law of the forum would apply. See Malaivanh v. Humphreys College, No. 16-cv-1081, 2017 WL 3503386, at *2 (E.D. Cal. Aug. 16, 2017) (observing that statutes of limitations are substantive for *Erie* doctrine purposes, and concluding that, if a federal court "applies a state statute of limitations, then it should also apply that state's tolling rules" (citing Erie R.R. Co. v. Tompkins, 304 U.S. 64 (1938), and Albano v. Shea Homes Ltd. P'ship, 634 F.3d 524, 530 (9th Cir. 2011))); see also 28 U.S.C. § 1652 ("The laws of the several states, except where the

discovered⁷ and "could not have been discovered by due diligence within the limitations period." Precision Airmotive Corp. v. Rivera, 288 F. Supp. 2d 1151, 1153 (W.D. Wash. 3 2003) (emphasis in original, citing G.W. Constr. Corp. v. Pro. Serv. Indus., Inc., 70 Wn. App. 360, 367, 853 P.2d 484 (1993), and *Giraud v. Quincy Farm & Chem.*, 102 Wn. 5 App. 443, 449, 6 P.3d 104 (2000)); see also PTP OneClick, LLC v. Avalara, Inc., No. 19-640JLR, 2020 WL 4729174, at *3 (W.D. Wash. May 27, 2020). 6 7 Although Nexeon relies on its own press release, various articles, the version of its website, and emails predating September 23, 2019,8 which was three years prior to 8 Group 14's commencement of this litigation, the evidence of real consequence concerns 10 the date on which the NDA terminated, which started the clock running on Group 14's 11 12 shall be regarded as rules of decision in civil actions in the courts of the United States, in cases where they apply."); cf. Chevron U.S.A., Inc. v. U.S. Env't Prot. Agency, 908 F.2d 468, 470 (9th 13 Cir. 1990) ("Ordinarily, . . . when courts are faced with federal statutes which do not specify a limitations period, they will apply the period set forth in the most nearly analogous state or 14 federal law."). 15 ⁷ According to Group 14's Chief Executive Officer ("CEO") Eric Charles (Rick) Luebbe, Group14 did not know Nexeon was developing a composite that employed a carbon scaffold 16 with silicon deposited into its pores (brand-named "NSP-2") until Nexeon's '786 Patent issued on September 24, 2019. See Luebbe Decl. at ¶ 4 (docket no. 95) (citing Luebbe Dep. at 86:19– 87:7, Ex. A to Luebbe Decl. (docket no. 95-1)). Although this testimony might reveal a genuine 17 dispute concerning whether Group 14 actually discovered or had subjective knowledge of the relevant facts more than three years before it initiated this lawsuit, it does not address whether, 18 under an *objective* standard, Group 14 had *constructive* notice of, or *should have* discovered, the facts underlying its misappropriation claim sometime before the publication of Nexeon's patent. 19 ⁸ Most of these items do not support Nexeon's assertion that Group 14 had constructive notice 20 about Nexeon's development of NSP-2. The (i) January 2018 press release, Ex. 8 to Lindberg Decl. (docket no. 86-8), (ii) January 2018 eeNews, January 2018 New Electronics, and April 21 2019 Chemical & Engineering News articles, Exs. 9, 10 & 15 to Lindberg Decl. (docket nos. 86-9, 86-10, & 86-15), and (iii) June 2019 version of Nexeon's website, Ex. A to Frank-White Decl., Ex. 17 to Lindberg Decl. (docket no. 86-17), do not refer to porous carbon or a 22 carbon scaffold. The September 11, 2019, email, Ex. 21 to Lindberg Decl. (docket no. 88-13), provided no specifics concerning Nexeon's then-forthcoming patents. 23

5

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

DTSA and UTSA claims. See PTP, 2020 WL 4729174, at *10–11. In PTP, on the day before the parties met to discuss the defendant's acquisition of the plaintiff's business or its tax preparation software, they executed a Confidentiality Agreement, which required the defendant, in the event a purchase-and-sale transaction did not proceed, to promptly return, or confirm in writing the destruction of, the plaintiff's confidential information. Id. at *1. The envisioned "deal" was abandoned in April 2012, but the plaintiff did not assert trade-secret-misappropriation and other claims against the defendant until October 2018. Id. at *2–3. The PTP Court concluded that the plaintiff's DTSA and UTSA claims were time barred, reasoning that the plaintiff should have known of its misappropriation claim "no later than April 2012," when the defendant failed to deliver or certify as destroyed the plaintiff's confidential materials. <u>Id.</u> at *10–12. The <u>PTP</u> Court determined, based on the statutory definitions of misappropriation, that the plaintiff's DTSA and UTSA claims accrued upon the defendant's improper retention of the plaintiff's alleged trade secrets, about which the plaintiff knew or should have known. See id. at *8–10; see also 18 U.S.C. § 1839(5) (defining misappropriation as improper "acquisition" or non-consensual "disclosure" or "use" of another's trade secret in certain circumstances); RCW 19.108.010(2) (same). As in <u>PTP</u>, in this matter, the parties' NDA has a return-or-certify-as-destroyed clause. <u>See NDA at ¶ 2(f) (docket no. 1-1)</u>. Moreover, the NDA terminated "immediately upon the completion or abandonment of the last operative Research Protocol." *Id.* at ¶ 7. "Research Protocol" was defined in the NDA as "[d]evelopment, testing and corroboration of enhanced performance of Nexeon's silicon materials when incorporated into carbon-silicon composite employing G[roup]14's technologies." *Id.* at ORDER - 9

App'x B. The parties do not dispute that, after January 25, 2018, when Nexeon withdrew its offer to acquire Group14, no composite materials or samples were sent by either entity 3 to the other one, and no further testing, as envisioned in the Research Protocol, occurred. 4 Nexeon therefore asserts that the NDA terminated on January 25, 2018. Def.'s 5 Mot. at 6 & 19–20 (docket no. 85). Group 14 responds that the parties continued to engage thereafter, citing Nexeon's CEO Scott Brown's May 31, 2018, email asking about 6 a licensing agreement, Brown's August 21, 2018, email responding to Group14 CEO 8 Luebbe's offer to ship some "scaled material," and Luebbe's October 29, 2018, email renewing his offer to ship product to Nexeon for evaluation. See Pl.'s Resp. at 24–25 10 (docket no. 94) (citing, respectively, Exs. 34, 17, & 16 to Gershenson Decl. (docket 11 nos. 102-2, 100-5, & 100-4). On November 8, 2018, however, Nexeon unequivocally 12 rejected Group 14's tender of samples, expressing concern about "IP contamination." See Ex. I to Lindberg Supp. Decl. (docket no. 125 at 5) (containing Group14 CEO Luebbe's 13 14 handwritten notes concerning a conversation with Nexeon CEO Brown and others); see 15 also Ex. 16 to Gershenson Decl. (docket no. 100-4) (containing an email in which Nexeon's Intellectual Property ("IP") Director Christopher Friend warned both Nexeon 16 17 CEO Brown and Chief Engineer Bill Macklin that they "needed to halt communications 18 [with Group14] to avoid IP contamination"). Group14 has not identified any 19 correspondence or other item in the record that (i) suggests the Research Protocol had not been completed or abandoned by, at the latest, November 8, 2018, or (ii) might have 20 21 breathed new life into the NDA after that date. The Court CONCLUDES, as a matter of 22 law, that the Research Protocol was completed or abandoned by, and that the NDA 23 terminated on, November 8, 2018. ORDER - 10

1 The NDA's termination on November 8, 2018, gave rise to Nexeon's duty to return or certify as destroyed any Confidential Information provided by Group 14, 3 including any trade secrets, and Nexeon's retention of any of Group14's trade secrets 4 after November 8, 2018, was not authorized. On this date, as a matter of law, Group 14's 5 DTSA and UTSA claims accrued. Notably, before this date, Group14 CEO Luebbe had received two emails of import. The first, dated June 14, 2018, was from Nexeon 6 7 CEO Brown. See Ex. 12 to Lindberg Decl. (docket no. 88-8). In this email, Brown set 8 forth certain principles on which he thought the two companies agreed, including the 9 view that the "best approach for making a high performance and commercial silicon 10 anode material" was to deposit silicon into a porous scaffold, and he projected that the 11 probability of Group 14 and Nexeon "doing a deal" would diminish over time because 12 either Group 14 had been successful (or not) or Nexeon had been successful (or not) or 13 "the competition has got too far ahead." <u>See id.</u> This message provided Group14 with 14 notice that Nexeon was working on a scaffold structure (albeit, not necessarily a carbon-15 based one), and that Nexeon understood the competitive pressures and was likely 16 working feverishly to keep pace. The second email, dated September 13, 2018, was from 17 Group14's consultant, who advised Group14 CEO Luebbe that Nexeon had hired 18 someone sought by Group14, namely a former employee of REC Silicon ASA, as well as 19 Dow Corning, with expertise concerning fluidized bed reactors ("FBRs"), which are used 20

22

²¹

⁹ The term "Confidential Information" was defined in the NDA as "all data, technical, financial and economic information, commercialization and research strategies, trade secrets and knowhow disclosed to Recipient by Discloser and that has been specifically designated as Confidential." NDA at ¶ 1(b) (docket no. 1-1). Thus, according to the NDA, "Confidential Information" is broader than, and not synonymous or co-extensive with, "trade secrets."

in chemical vapor infiltration ("CVI"), a process for depositing silicon into the pores of carbon scaffolds. See Ex. 13 to Lindberg Decl. (docket no. 88-9); see also '335 Patent at 3 3:24–29 & 4:1–12 (describing the role of FBRs in CVI). 4 Considering the record as a whole, the Court CONCLUDES, as a matter of law, 5 that, by November 8, 2018, Group 14 had reason to know about the injury that is the premise of its DTSA and UTSA claims. 10 See Gregg v. Haw. Dep't of Pub. Health, 870 F.3d 883, 887 (9th Cir. 2017) (observing, in the context of a claim under 42 U.S.C. 8 § 1983, the accrual date of which is a matter of federal law, that "a cause of action accrues when the plaintiff knows or has reason to know of the injury that is the basis of 10 11 ¹⁰ Group 14's expert appears to have inadvertently agreed that Group 14 should have discovered 12 the facts underlying its misappropriation claims long before Nexeon's '786 Patent became public in September 2019. In his declaration attached to Group14's "fifth" supplemental discovery 13 response, Group14's expert contends that certain statements made and diagrams included in Nexeon's application relating to Project SUNRISE, a venture partially funded by Innovate UK, 14 an agency of the United Kingdom of Great Britain and Northern Ireland, show that Nexeon "rote[ly] cop[ied]" Group14's trade secrets. See Martin Decl. at ¶¶ 28 & 37–47, App'x A to 15 Group14's 5th Supp. Resp., Ex. 9 to Gershenson Decl. (docket no. 99-4). Group14's expert opines that Nexeon's misappropriation occurred "at least as early as Nexeon's October 2017 SUNRISE application." <u>Id.</u> at ¶ 47. The £7-million award for Project SUNRISE was publicly 16 announced on January 3, 2018. Exs. 8 & 9 to Lindberg Decl. (docket nos. 86-8 & 86-9). By the next day, January 4, 2018, Group 14's CEO and two other officers, as well as two of its 17 employees, one of whom is listed as an inventor on the '950 and '103 Patents, had learned of Nexeon's successful SUNRISE application. See Ex. 11 to Lindberg Decl. (docket no. 88-7). 18 During this timeframe, the CEOs of Group14 and Nexeon were in communications about Nexeon's proposal to acquire Group14, and Group14 could have, but apparently did not, inquire 19 about Project SUNRISE or ask to see a copy of the application submitted to Innovate UK. See Exs. 7 & 12 to Lindberg Decl. (docket nos. 88-6 & 88-8). This lack of curiosity about Project 20 SUNRISE extended for months, even after Nexeon CEO Brown indicated by email in June 2018 that he believed the two companies agreed on a porous-carbon-scaffold-with-silane-deposition 21 approach. See Ex. 12 to Lindberg Decl. (docket no. 88-8). Group14 has not denied that the SUNRISE application was publicly or via diligent inquiry available by early January 2018, and it now faces a "Catch-22" situation, in which it cannot allege that Nexeon included Group14's 22 trade secrets in the SUNRISE application without also conceding that its misappropriation claims are precluded by the statutes of limitations. 23

ORDER - 12

the action and the cause of that injury," that the "plaintiff 'must be diligent in discovering the critical facts," and that "[a] cause of action accrues even if 'the full extent of the injury is not then known'"). Group 14's federal and state trade-secret-misappropriation claims, which were brought more than three years after November 8, 2018, are time barred, Nexeon is entitled to summary judgment on that basis, and Group 14's DTSA and UTSA claims are DISMISSED with prejudice.

C. **Unjust Enrichment**

Nexeon aptly argues that Group14's unjust-enrichment claim is not cognizable because the parties have an express contract. A claim for unjust enrichment is premised on a contract implied in law, as opposed to a contract implied in fact. See Young v. Young, 164 Wn.2d 477, 483–84, 191 P.3d 1258 (2008). 11 The unjust enrichment doctrine presupposes the absence of an express contractual relationship. <u>See Bircumshaw v.</u> *Washington*, 194 Wn. App. 176, 205, 380 P.3d 524 (2016). Under Washington law, "[a] party to a valid express contract is bound by the provisions of that contract, and may not disregard the same and bring an action on an implied contract relating to the same matter, in contravention of the express contract." United States ex rel. Walton Tech., Inc. v. Weststar Eng'g, Inc., 290 F.3d 1199, 1204 (9th Cir. 2002) (alteration in original, quoting <u>Chandler v. Wash. Toll Bridge Auth.</u>, 17 Wn.2d 591, 604, 137 P.2d 97 (1943)).

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

²⁰

¹¹ A contract implied in law exists if (1) the defendant receives a benefit, (2) the received benefit is at the plaintiff's expense, and (3) the circumstances render unjust the defendant's retention of 21 the benefit without payment. Young, 164 Wn.2d at 484–85. In contrast, a contract implied in fact gives rise to an award of quantum meruit, which is the reasonable value of services or 22 materials rendered. *Id.* at 485. A contract implied in fact has the following elements: "(1) the defendant requests work, (2) the plaintiff expects payment for the work, and (3) the defendant knows or should know the plaintiff expects payment for the work." *Id.* at 486. 23

1	The parties' NDA defined the terms pursuant to which Nexeon received the benefit of
2	Group14's Materials ¹² and Confidential Information, and Group14 may not circumvent
3	the agreement by seeking relief on the basis of an implied, rather than the express,
4	contract. To the extent that Group14 pleaded a standalone unjust-enrichment claim,
5	Nexeon is entitled to summary judgment, and such claim is DISMISSED with prejudice.
6	Group14, however, appears to have asserted unjust enrichment merely as a
7	component of damages for trade-secret misappropriation, citing a provision of the UTSA
8	<u>See</u> Compl. at Count IV (docket no. 1 at 19). The UTSA "displaces conflicting tort,
9	restitutionary, and other law pertaining to civil liability for misappropriation of a
10	trade secret," but it does not affect "[c]ontractual or other civil liability or relief that is no
11	based upon misappropriation of a trade secret." RCW 19.108.900. The UTSA further
12	provides:
13 14	In addition to or in lieu of injunctive relief, a complainant may recover damages for the actual loss caused by misappropriation. A complainant also may recover for the unjust enrichment caused by misappropriation that is not taken into account in computing damages for actual loss.
15	RCW 19.108.030(1). In other words, the UTSA preempts common law actions premised
16	on trade-secret misappropriation, but allows a successful UTSA complainant to recover
17	for any unjust enrichment in excess of the actual loss caused by misappropriation. <u>See</u>
18	Thola v. Henschell, 140 Wn. App. 70, 85, 164 P.3d 524 (2007); see also Inteum Co., LLC
19	v. Nat'l Univ. of Singapore, No. C17-1252, 2018 WL 2317606, at *2 (W.D. Wash.
20	
21	¹² The NDA defined "Materials" as certain physical items and "any substance that is derived, in
22 23	whole or in part, from such" items. <u>See NDA ¶ 1(a)</u> (docket no. 1-1). The physical items included silicon materials provided by Nexeon and "carbon-silicon composites, electrode materials, and/or Li ion devices" supplied by Group14. <u>Id.</u> at App'x A.

May 22, 2018) ("To avoid preemption, a claim must be 'wholly independent' of facts used to prove trade secret misappropriation."). Because Group14's UTSA claim is time barred, Group14 may not seek damages, with respect to its UTSA claim, on an unjust-

enrichment theory. Group14's prayer for unjust-enrichment damages is STRICKEN.¹³

D. Breach of Contract

In Washington, an action upon a written contract must be commenced within six years. <u>See</u> RCW 4.16.040(1). Nexeon does not contend that Group14's breach-of-contract claim was untimely brought. As pleaded, Group14's breach-of-contract claim relied on two theories: (i) unauthorized disclosure of Group14's Confidential Information, and (ii) plagiaristic use of Group14's trade secrets to secure one or more patents. 14 <u>See</u> Compl. at ¶¶ 43–45 & 68 (docket no. 1). In response to Nexeon's motion for summary judgment, Group14 has now asserted another unpleaded basis for its breach-of-contract claim, namely unauthorized transfer of its Materials. The Court addresses the allegations of unauthorized disclosure and transfer before turning to the question of whether Group14 has adequately identified any trade secret.

pursue the above-listed options, however, Group14 now attempts to improperly collaterally attack the '786 Patent.

¹³ In light of its rulings, the Court DECLINES to address Nexeon's separate contention that Group14's unjust-enrichment claim is also time barred.

¹⁴ The record reflects that, in November 2019, Group14 recognized that its possible remedies were to (i) protest Nexeon's '786 Patent, (ii) "block" it with Group14's earlier-filed patent application, or (iii) "approach Nexeon to point out they need to make us co-inventors." <u>See</u> Ex. 19 to Lindberg Decl. (docket no. 88-12). Group14's pre-litigation understanding was similar to the Court's subsequent observations. <u>See</u> Order at 24 (docket no. 83) (citing 35 U.S.C. §§ 116 & 256, <u>Stark v. Advanced Magnetics, Inc.</u>, 119 F.3d 1551 (Fed. Cir. 1997), and <u>PerSeptive</u>

22 <u>Biosystems, Inc. v. Pharmacia Biotech, Inc.</u>, 225 F.3d 1315 (Fed. Cir. 2000)). Rather than

1. No Unauthorized Disclosure

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

To the extent premised on an unauthorized disclosure of Confidential Information, Group 14's breach-of-contract claim lacks merit. The NDA required the recipient of Confidential Information, including any trade secret, to maintain its secrecy for three years after the NDA's termination or until the information became otherwise "generally known or available." NDA at ¶ 2(d) (docket no. 1-1). Because the NDA terminated on November 8, 2018, Nexeon's contractual duty of confidentiality expired, at the latest, on November 8, 2021. Nexeon's duty of confidentiality might have ceased earlier, at least in part, on March 9, 2017, when the patent application filed by Group 14's predecessor EnerG2 Technologies, Inc. ("EnerG2"), which contained some of the claims in Group14's '950 Patent, was published. <u>See</u> Int'l Publ'n No. WO 2017/040299 A1. In its operative pleading, Group14 alleged that Nexeon "shared Group14's carbonbased scaffolding and/or information derived therefrom" with Ingevity Corporation ("Ingevity"), a publicly-traded company that invested \$60 million in Nexeon. See Compl. at ¶ 43 (docket no. 1). Group14 did not, however, specify when any disclosure by Nexeon to Ingevity occurred or what particular information was divulged. Moreover, Group 14 did not indicate exactly when Ingevity invested in Nexeon, alleging only that the transaction had been "recently announced," *i.e.*, shortly before Group14 commenced this lawsuit in September 2022, and after the secrecy obligations of the NDA had expired. See id. 15 Thus, Group 14's complaint does not contain the facts necessary to infer that, ¹⁵ In its motion for summary judgment, Nexeon indicated that Ingevity's acquisition of an equity

^{22 | 15} In its motion for summary judgment, Nexeon indicated that Ingevity's acquisition of an equity stake in Nexeon was announced on August 22, 2022, but Nexeon did not cite anything other than Group14's complaint, which does not specify any date. <u>See</u> Def.'s Mot. at 10 (docket no. 85).

Group14's complaint, which does not specify any date. <u>See</u> Def.'s Mot. at 10 (docket no. 85).

with respect to any information shared with Ingevity, Nexeon continued to have and breached a duty of confidentiality.

In responding to Nexeon's motion for summary judgment, Group14 has not even mentioned Ingevity or attempted to bolster with any evidence or analysis the allegations made in its pleading. In commencing this action, Group14's exact words were as follows:

In addition to disclosing Group14's trade secrets in its patent applications, Nexeon evidently shared Group14's carbon-based scaffolding and/or information derived therefrom with third parties without Group14's prior written consent. One such third party is Ingevity Corporation

Compl. at ¶ 43 (docket no. 1). When asked in his Rule 30(b)(6) deposition about whether Group14 had conducted the required reasonable inquiry before filing its complaint, Group14's Chief Technology Officer ("CTO") Henry (Rick) Costantino replied that Group14 CEO Luebbe attempted to contact Ingevity, but "never heard a response." *See* Costantino Dep. at 40:8–41:23, Ex. 1 to Lindberg Decl. (docket no. 88-1). Given the absence of support for the factual contentions in Group14's initial pleading, *see* Fed. R. Civ. P. 11(b)(3); *see also Anderson*, 477 U.S. at 257 ("the plaintiff must present affirmative evidence"), and Group14's apparent abandonment of the theory of liability, the Court CONCLUDES that Nexeon is entitled to summary judgment as to any claim that it breached the NDA by disclosing Confidential Information to Ingevity, and such claim is DISMISSED with prejudice.

2. No Unauthorized Transfer

To the extent premised on an unauthorized transfer of Materials, Group14's breach-of-contract claim likewise fails. Despite not pleading so in its complaint,

Group 14 now contends that Nexeon transferred Materials (but not Confidential Information), without Group 14's consent, to the University of Oxford's Oxford Materials 3 Characterisation Service ("OMCS" or "Oxford") and to University College London ("UCL"). <u>See</u> Pl.'s Resp. at 15 (docket no. 94) (citing Exs. 24, 27, 35, & 36 to 5 Gershenson Decl. (docket nos. 101-2, 101-5, 102-3, & 102-5)). Of the four exhibits on which Group14 relies, only one explicitly reflects that individuals not employed by 6 Nexeon were provided access to the Materials. ¹⁶ See Ex. 27 to Gershenson Decl. (docket 8 no. 101-5). This exhibit contains a chain of emails dated between November 2 and November 13, 2017, in which Thomas Kaleta, a Quality Representative for Nexeon, 10 communicated with Kerstin Jurkschat and Colin Johnston at Oxford/OMCS, asking for a 11 focused ion beam ("FIB") and transmission electron microscopy ("TEM") analysis of two samples. 17 Id. Charles Mason, one of the inventors listed on Nexeon's '786 Patent, 12 13 was copied on some of these emails. *Id*. The imaging results were received on 14 November 13, 2017, and forwarded to Chiara Poggi of Nexeon, who sent them on 15 16 ¹⁶ Two of the other three exhibits cited by Group14 consist of PowerPoint slides bearing Nexeon's logo and containing no indication that they were presented to anyone outside Nexeon. 17 See Ex. 24 (docket no. 101-2) (labeled "Nexeon Board Presentations" and dated February 2018); Ex. 35 to Gershenson Decl. (docket no. 102-3) (titled "Commercial request G14 competitor 18 update"). The other document is a one-page spreadsheet listing properties, theoretical particle expansions, and average particle expansion data for five samples of Materials sent by Group14 to 19 Nexeon. See Ex. 36 to Gershenson Decl. (docket no. 102-5). The spreadsheet, which is dated October 2017, does not identify its preparer or any recipients. *Id.* 20 ¹⁷ The first sample (labeled CM-MAT-325 by Nexeon and G14-17-004 by Group14) was 21 received by Nexeon from Group14 on July 12, 2017, and consisted of five grams of carbon scaffold material. Ex. N to Lindberg Supp. Decl. (docket no. 127 at 3 & 5). The second sample (labeled COL-MAT-208 by Nexeon and G14-17-010 by Group14) was received by Nexeon from 22 Group14 on October 2, 2017, and consisted of six-to-seven grams of silicon-carbon composite material. Id. (docket no. 127 at 3, n.2, & 7). 23

ORDER - 18

November 14, 2017, to Nexeon IP Director Friend and Shubhra Padiyar, who has not been identified by the parties, but presumably worked for Nexeon. *See id.*

In response to Group 14's unpleaded accusation of improper transfers to third parties, Nexeon explains that, at the time Materials were provided to OMCS and UCL, those entities were Nexeon's "agents," and therefore not "third parties" within the meaning of the NDA. See Def.'s Reply at 11 (docket no. 120). As support, Nexeon has submitted the following documents: (1) the Standard Conditions for Supply of Services that applied to the contract between Oxford and Nexeon, pursuant to which Oxford provided certain services for which Nexeon paid fees, and Oxford was required to "use its reasonable endeavors not to disclose any Confidential Information to any third party," <u>see</u> Ex. K to Lindberg Supp. Decl. (docket no. 118-11); (2) the Mutual Non-Disclosure Agreement between UCL and Nexeon dated December 9, 2016, which set forth UCL's and Nexeon's mutual "undertakings" to maintain the secrecy of their respective confidential information, see Ex. L to Lindberg Supp. Decl. (docket no. 118-12); and (3) Nexeon's answer to Group14's Interrogatory No. 5, which asked Nexeon to identify all "third parties" with which it shared "any material, disclosure and/or information" provided by Group14; after stating a number of objections, Nexeon represented that it has not shared any material, disclosure, and/or information provided to it by Group14 with any third party except for its outside counsel of record in

by Group14 with any third party except for its outside counsel of record in this case and certain contract laboratories who conducted analysis on Group14 materials as requested by Nexeon and in connection with Nexeon's due diligence activities of Group14 that began in late March 2017 and

22

23

2

3

4

5

6

7

8

10

11

12

13

14

15

16

17

18

19

²¹

¹⁸ Nexeon objected to Group14's discovery request's definition of "third party" / "third parties," which has not been provided to the Court, but which apparently included "individual members of Nexeon's Board of Directors, whom Nexeon does not consider third parties." Ex. M to Lindberg Decl. (docket no. 126 at 3).

4 |

concluded in January 2018. In the case of each analysis conducted by contract laboratories, the material was provided with control numbers and no other information as to the materials' provenance. And in each such case, the results of the analysis were provided to Nexeon under terms of confidentiality with each laboratory.

Ex. M to Lindberg Supp. Decl. (docket no. 126 at 4).

Nexeon's "contract laboratory as agent" defense is consistent with the NDA, which contemplated that the parties would analyze and conduct tests of the exchanged Materials. <u>See</u> App'x B to NDA (docket no. 1-1). As acknowledged by Group14 CTO Costantino, Group14 expected Nexeon to perform "electrochemical testing" to assess the performance of samples provided by Group14 and compare them to Nexeon's existing NSP-1 product. <u>See</u> Costantino Dep. at 113:4–114:3, Ex. 1 to Lindberg Decl. (docket no. 88-1). And, as anticipated by Group14, Nexeon conducted "electrochemical testing" on items made from the four samples of silicon-carbon composite received from Group14 between March 27, 2017, and October 2, 2017. <u>See</u> Ex. N to Lindberg Supp. Decl. (docket no. 127). Nexeon also studied the five-gram sample of carbon scaffold material received from Group14 on July 12, 2017. <u>Id.</u>

Certain tests were performed in house by Nexeon personnel, but (i) inductively-coupled plasma and LECO¹⁹ analyses were conducted by LSM-AMG Superalloys UK Ltd., also known as AMG Analytical Services, a division of AMG Chrome Limited, which is part of AMG Critical Materials N.V. ("AMG Analytical"), (ii) mechanical testing occurred at Shimadzu Corporation ("Shimadzu") in Japan, (iii) X-ray computed

¹⁹ LECO appears to be a brand name for instruments used by AMG Analytical to determine the concentration of gases within a carbon sample. <u>See</u> https://amg-chrome.com/analytical-services; https://www.leco.com/elemental.

tomography ("XCT") was done by UCL, and (iv) X-ray diffraction ("XRD"), X-ray photoelectron spectroscopy ("XPS"), and X-ray Raman scattering spectroscopy ("XRS"), as well as FIB/TEM, was contracted out to OCMS. <u>See id.</u>

Notably, although Nexeon identified all four contract laboratories in its April 10, 2023, answers to Group 14's first set of interrogatories and requests for production, see Ex. M to Lindberg Supp. Decl. (docket no. 126), Group 14 has not asserted, in response to Nexeon's motion for summary judgment, that Nexeon's provision of Materials to either AMG Analytical or Shimadzu constituted transfers to third parties in violation of the NDA. With respect to the procedures performed by OMCS and UCL, Group 14 does not argue that Nexeon would have been in breach of the NDA if it had itself employed XCT, XRD, XPS, XRS, and/or FIB/TEM to examine the Materials sent by Group14 and/or the electrodes, coin cells, and pouch cells generated therefrom. The investigative work was completed during the term of the NDA, <u>see</u> Ex. N to Lindberg Supp. Decl. (docket no. 127) (indicating that testing concluded by the end of January 2018), while Nexeon had a right to "use" the Materials to conduct the Research Protocol, see NDA at ¶ 2(a) (docket no. 1-1), and no effort has been made by Group14 to show that the analyses at issue were unrelated to the Research Protocol. Moreover, Group14 offers no basis for concluding that it did not understand Nexeon would need to engage the services of contract laboratories. Indeed, any such inference would run contrary to the NDA, which explicitly refers to "agents that are given access to the Materials," id. at $\P 2(b)$, in recognition of an apparently standard industry practice of paying an independent entity with the necessary equipment to perform the desired tests.

2

3

4

5

6

10

11

12

13

14

15

16

17

18

19

20

21

The Court CONCLUDES, as a matter of law, that Nexeon's transfers to Oxford and UCL, as well as to AMG Analytical and Shimadzu, of samples provided by Group14 (and/or their derivatives) qualified as authorized "use" of the Materials and did not breach the NDA. The Court alternatively CONCLUDES that Group14 is barred from pursuing any claim premised on Nexeon's transfers of Materials to OMCS and/or UCL because the underlying factual allegations were not pleaded and notice of such claim was not properly provided. As to Group14's breach-of-contract claim predicated on allegedly unauthorized transfers of Materials, Nexeon is entitled to summary judgment, and such claim is DISMISSED with prejudice.

3. No Trade Secret

To the extent premised on trade-secret misappropriation, Group14's breach-of-contract claim is precluded by the UTSA. <u>See</u> RCW 19.108.900(2)(a). In moving for summary judgment, however, Nexeon did not invoke statutory preemption, but rather relied solely on the argument that Group14 had not identified any trade secret with the requisite "reasonable specificity." <u>See</u> Def.'s Mot. at 13–14 & 24 (docket no. 85) (citing <u>inter alia Imax Corp. v. Cinema Techs., Inc.</u>, 152 F.3d 1161 (9th Cir. 1998), and <u>Freeman Inv. Mgmt. Co., LLC v. Frank Russell Co.</u>, No. 13-CV-2856, 2016 WL 5719819 (S.D. Cal. Sept. 30, 2016)); <u>see also MAI Sys. Corp. v. Peak Comput., Inc.</u>, 991 F.2d 511, 522 (9th Cir. 1993) ("[A] plaintiff who seeks relief for misappropriation of trade secrets must identify the trade secrets and carry the burden of showing that they exist."). At the time Nexeon filed its motion, Group14 had not yet served its "fifth" supplemental response to Nexeon's Interrogatory No. 1, which asked Group14 to identify "all facts and

documents sufficient to show with reasonable specificity the 'manufacturing processes, know-how, and precise measurements and properties' that [it] contend[s are] . . . trade secrets." <u>See</u> Ex. 9 to Gershenson Decl. (docket no. 99-4 at 7). Although the Court agrees with Nexeon that Group14's "fifth" supplemental interrogatory response was untimely, the Court has nevertheless considered the two-page list of alleged trade secrets labeled A–O, <u>see</u> Ex. 9 to Gershenson Decl. (docket no. 99-4 at 44–45), and it has thoroughly reviewed the 115-page declaration of Group14's expert, which refers to and appends seven exhibits, <u>see id.</u> (docket no. 99-4 at 48–339).

The Court concludes that Group14's "fifth" supplemental response is essentially duplicative of Group14's third supplemental response, which did not describe any trade secret with the necessary particularity. <u>See</u> Order (docket no. 83). As indicated in the table that begins on the next page, the Court previously considered the PowerPoint slides on which Group14's expert has based his opinions that items A–O constitute trade secrets, and these same PowerPoint slides have already been found wanting. <u>See id.</u>
Group14 has attempted to seek reconsideration of the Court's prior rulings by submitting its expert's declaration detailing his disagreements with the Court's analysis. This backdoor approach is improper, ²⁰ and the Court finds it unpersuasive for the reasons stated in the footnotes imbedded in the column farthest to the right on the following table.

Court requests a response. See LCR 7(h).

^{21 | 20} Reconsideration should be sought by a motion (not an expert's declaration) showing either "manifest error" or "new facts or legal authority" that could not have been brought to the Court's attention earlier "with reasonable diligence," and no such motion may be granted unless the

1 2	Ite	m	PowerPoint Slides Cited by Group14's Expert ²¹	Court's Ruling Rejecting Contention that Cited PowerPoint Slides Contain Trade Secrets ²²
	A	\	G14_0001418 at Slides 16 & 17 (p. 67 at ¶ 93)	Order at 19–21 ²³ (citing docket no. 70 at 32–33 (G14_0001418 at Slides 16 & 17))
	W. M	artir		PowerPoint slides cited by Group14's expert, paragraph numbers of the Declaration of Steve th" Supplemental Response, Exhibit 9 to the 4.

²² This column contains the numbers of pages of the Court's Order entered March 26, 2024, docket no. 83, on which the PowerPoint slides at issue were previously addressed, followed by (in parentheses) the numbers of the pages of Group14's Third Supplemental Response, Exhibit 4 to the Declaration of Adam Pivovar, docket no. 70, that were considered by the Court and on which the PowerPoint slides were reproduced.

²³ With regard to Slides 13–14 & 16–19 of the deck Bates stamped G14_0001418, the Court previously reasoned that, although the PowerPoint slides reflected "undesirable results" from a tube furnace, they otherwise provided minimal detail about Group14's lab-scale method. See Order at 19–20 (docket no. 83). The Court also concluded that, with respect to Group 14's selection of a "batch rotary kiln" for its pilot-scale development, which was discussed in the PowerPoint slides, the choice of equipment could not be considered a trade secret because "the '950 Patent identifies rotary kilns as one of the designs 'known in the art' that would be 'suitable' for chemical vapor deposition, . . . and the '103 Patent contains two dependent claims in which the only additional element is use of a rotary kiln." *Id.* at 20 (citations omitted). Group14's expert contends that the Court's Order "misses the overall reason that Group14 performed the tube furnace experiment in the first place," which he asserts was "to learn that it was essential to have a narrow temperature uniformity." Martin Decl. at ¶ 98 (docket no. 99-4). The PowerPoint slides themselves tell a different story. They show that Group14 discovered, during its lab-scale experiments, that a tube furnace experiences too much internal temperature variation, and that, to avoid this temperature gradient, Group14 decided to use a rotary kiln for its pilot-scale system. Group14 then told the world about its preferred apparatus. See Int'l Publ'n No. WO 2017/040299 A1 (Mar. 9, 2017); U.S. Publ'n No. 2017/0346084 (Nov. 30, 2017). Group 14's assertion that a "narrow reactor temperature uniformity ($\pm \sim 5$ °C)" was not publicly known in February 2019, when Nexeon applied for its '786 Patent, is belied by (i) Claim 1 of the '103 Patent, which specifies that the temperature at which amorphous activated porous carbon material must be contacted by a gas comprising silane is exactly 450°C, see '103 Patent at 85:2–8, in combination with (ii) the prosecution history of the '103 Patent, which reflects that the demonstrated criticality of 450°C as the reaction temperature was the reason Claim 1 of the '103 Patent was allowed, <u>see</u> Office Action, Application No. 15/675,462 (Oct. 18, 2018); see also Reply to Office Action, at 9 (Jan. 16, 2019) (summarizing the Office Action as reflecting the patent examiner's agreement that the data in Group14 CTO Costantino's declaration "support unexpected criticality at [a] temperature[] of 450°C"). Group 14's expert

10

11

12

13

14

15

16

17

18

19

20

21

22

1	
2	
3	
4	I

Item	PowerPoint Slides Cited by Group14's Expert ²¹	Court's Ruling Rejecting Contention that Cited PowerPoint Slides Contain Trade Secrets ²²
В	G14_0001214 & G14_0024051 at Slides 21 & 27 (pp. 71–73 at ¶¶ 101–102)	Order at 16–19 ²⁴ (citing docket no. 70 at 29–30 (G14_0001214 & G14_0024051 at Slide 27))

6

attempts to characterize the ranges of temperatures described in the specifications of the '950 and '103 Patents as the "set point" for the reactor, as distinct from the "temperature tolerance" associated with the set point. <u>See</u> Martin Decl. at ¶ 99 (docket no. 99-4). He has, however, ignored the wording of Claim 1 (originally numbered as Claim 33) of the '103 Patent, which permits no deviation in temperature. In addition, he does not indicate how the set point and tolerance apply to rotary kiln furnaces, as opposed to tube furnaces, or suggest that rotary kilns do not, inherently and/or by design, maintain a uniform temperature within \pm ~5°C of the set point. Group14 does not purport to have altered or improved rotary kilns or the way in which they are used, and its selection of such furnace as an element of two of its patent claims necessarily leads to the conclusion that such equipment itself solved the temperature-variation problem experienced in connection with Group14's lab-scale tube furnace.

11

12

13

14

15

16

17

18

19

20

21

10

²⁴ Group14's expert has opined that "Group14 discovered and developed a powerful use of TGA [thermogravimetric analysis] for evaluating its CVI-based Si-C composite materials," but he describes this "powerful use" in only vague terms, namely as "the key 'small/large' TGA metric." Martin Decl. at ¶ 101 (docket no. 99-4). To support his opinion that "the key 'small/large' TGA metric" constitutes a trade secret, Group14's expert relies on familiar PowerPoint slides, one of which the Court deemed insufficient to demonstrate a trade secret because it had been presented in almost identical form to the United States Department of Energy ("DOE") in June 2017, accompanied by a disclaimer of "any proprietary, confidential, or otherwise restricted information." See Order at 17–19 (docket no. 83) (citing G14 0001214 and Ex. 8 to Lindberg Decl. (docket no. 67-2 at 2 & 20)). Group14's expert now states that DOE "reviewers" criticized Group14 for refusing to disclose, for proprietary reasons, "how the Si was supported on the C matrix" or "the synthesis process or the precursors used in the synthesis." Martin Decl. at ¶ 106 (docket no. 99-4). He opines that, because the method for creating the composite was not disclosed, the "small/large' TGA metric" was also not disclosed to the DOE. See id. at \P 106–07. This reasoning is akin to saying that, to understand how a measuring tape indicates the width or height of a wall, one must understand how the building was constructed, and the Court rejects it as illogical. The Court also notes that the PowerPoint slides reveal only a portion of the story; each slide was presumably accompanied by an oral presentation, the content of which is not in the record. Given the similarities in the slides, Group14 is not entitled to any inference that the information verbally provided to the DOE was substantially different from what was shared with Nexeon. The Court further observes that nothing in the PowerPoint slides or in Group14's or its expert's descriptions of alleged trade secret B outlines the TGA process, explains how Group14 used TGA to determine the percentages of "small" Si and "large" Si, or even defines "small" and "large." In its prior ruling, the Court remarked that Group14's expert

had not, in his earlier opinion, referenced an article cited in one of the PowerPoint slides or attempted to distinguish Group14's alleged trade secret from the techniques publicly disclosed in

23

1 2	Item	PowerPoint Slides Cited by Group14's Expert ²¹	Court's Ruling Rejecting Contention that Cited PowerPoint Slides Contain Trade Secrets ²²
3 4	C	G14_0007058 & G14_0024051 at Slide 27 (pp. 81–82 at ¶¶ 113–114) ²⁵	Order at 16–17 & 19 (citing docket no. 70 at 30 (G14_0024051 at Slide 27 & G14_0007058))

the article. <u>See</u> Order at 19 (docket no. 83) (citing G14_0024051 at Slide 27, Ex. 4 to Pivovar Decl. (docket no. 70 at 30) (alluding to T. Jaumann, et al., *Dichlorosilane-derived nano-silicon inside hollow carbon spheres as a high-performance anode for Li-ion batteries*, 5 J. MATERIALS CHEMISTRY A 9262 (2017))). Group14's expert now tries to discount the Jaumann article because "the Si-C composites in Jaumann are not CVI-based," but rather had a structure in which a carbon shell surrounded silicon particles, rendering irrelevant any difference between "small" and "large" Si. Martin Decl. at ¶¶ 108–09 (docket no. 99-4). As conceded, however, by Group14's expert, Jaumann "validated" or "independently confirmed" that "the shape of a TGA curve" could be interpreted "based on the initial oxidation of 'small' Si to SiO₂ (resulting in mass gain), carbon oxidation to CO₂ (resulting in mass loss), and oxidation of 'large' Si to SiO₂ (resulting in mass gain)." <u>Id.</u> at ¶ 110. The only difference in approach described by Group14's expert is that Group14 attached a significance to the "small" Si and "large" Si percentages, but Jaumann did not. <u>See id.</u> at ¶¶ 109–10. Contrary to any suggestion being made by Group14's expert, recognizing the value or potential applicability of someone else's publicly-disclosed technique or invention does not itself constitute a trade secret.

²⁵ According to Group 14's expert, "Group 14 recognized that the deposition of Si within the CVIbased Si-C composites had to be in the 'Goldilocks' zone—too little Si deposited within the pores and electrochemical performance would be degraded, too much Si deposited such that it built up on the surface of the scaffold and electrochemical performance would also be degraded." Martin Decl. at ¶ 113 (docket no. 99-4). The "Goldilocks" zone is not, however, disclosed in either of the PowerPoint slides cited by Group14's expert. At most, these PowerPoint slides, the latter of which refers to the Jaumann article, indicate the percentages of "small" Si and "large" Si in four different batches of silicon-carbon composites. The slides do not contain any information concerning how each batch was produced, how each batch performed electrochemically, or how "small" Si and "large" Si were defined, and they do not disclose the optimum percentages of "small" Si and "large" Si. The deposition testimony of Group 14's Vice-President of Engineering Chris Timmons, reproduced in Group 14's expert's declaration, likewise offers no specifics. See id. at ¶ 112. When asked what Group14 disclosed to Nexeon about TGA that wasn't also available to the public, Timmons responded, "what we discussed with Nexeon is how powerful that tool is . . . to give us indication into whether or not we're achieving the right temperature uniformity." Id. (quoting Timmons Dep. at 143:23–144:2, Ex. 3 to Gershenson Decl. (docket no. 98-3)). Contrary to Group 14's expert's apparent opinion, praising a trade secret is not equivalent to revealing a trade secret, and nothing in the quoted portions of Timmons's deposition testimony identifies a trade secret or evidences that the particulars of "the key 'small/large' TGA metric" were conveyed to Nexeon.

5

10

11

12

13

14

15

16

17

18

19

20

21

1	
2	
3	
4	
5	

Item	PowerPoint Slides Cited by Group14's Expert ²¹	Court's Ruling Rejecting Contention that Cited PowerPoint Slides Contain Trade Secrets ²²
D	G14_0024051 at Slide 20 & G14_0001418 at Slide 9 (pp. 83 & 86 at ¶¶ 116 & 118) ²⁶	Order at 15–16 (citing docket no. 70 at 26 & 28 (G14_0024051 at Slide 20 & G14_0001418 at Slide 9))
E	G14_0001316, G14_0001336, & G14_0007056–58 (p. 88–90 at ¶ 123)	Order at 12–14 ²⁷ (citing docket no. 70 at 23–25 (G14_0001316, G14_0001336, & G14_0007056–58))

10

11

12

13

14

6

²⁶ Item D is described as "Group14's discovery that highly microporous, ultrapure EnerG2 V2 carbon was ideally-suited for commercially-viable CVI-based Si-C composites." Pl.'s 5th Supp. Resp. at 54, Ex. 9 to Gershenson Decl. (docket no. 99-4). Although the cited PowerPoint slides mention "microporous amorphous carbon" and "microporous, ultra-pure E2 carbon," they discuss only what Group14 had "explored" or was "employing" for "lab-pilot studies." See Martin Decl. at ¶¶ 116 & 118 (docket no. 99-4). Neither slide indicates that EnerG2 V2 carbon was "ideally-suited for commercially-viable CVI-based Si-C composites." Moreover, although an email from Group 14 CTO Costantino to Nexeon Chief Engineer Macklin referenced "EnerG2 V-type carbon," it did not describe the substance as "ideally-suited for commercially-viable CVIbased Si-C composites." See id. at ¶ 118 (replicating NEXEON 000120). When asked about this particular email in his Rule 30(b)(6) deposition, Group14 CTO Costantino acknowledged that the carbon being provided by EnerG2 at the time the email was sent was "pretty expensive" and "not going to meet the Group14 targets for . . . cost and scalability." See Costantino Dep. at 148:1–149:23, Ex. 4 to Gershenson Decl. (docket no. 98-4 at 40). Thus, the record does not support Group 14's assertion that Nexeon was told EnerG2 V2 carbon was "ideally-suited" for commercial use.

15

16

17

18

19

20

21

²⁷ Group14's expert contends that, in its earlier Order, the Court conflated *silicon* particle size distribution with Si-C composite particle size distribution, and therefore did not understand the significance of the PowerPoint slides in which Group14 set forth the percentages of "small" and "large" silicon within the composite materials, identified as G14-17-001, G14-17-006, G14-17-008, and G14-17-010, that were sent to Nexeon between late March and early October 2017. See Martin Decl. at ¶ 127–30 (docket no. 99-4). Although the prior Order contained a mistake, the error did not affect the result reached by the Court. The Court observed that the '950 Patent identified several physiochemical properties that were predictive of "extremely durable" intercalation of lithium, including silicon content, surface area, pore volume, pore size distribution, span of particle sizes, and lithium to carbon atom ratios. Order at 13–14 (docket no. 83). Also included in this list was "silicon particle size distribution," id. at 14 (emphasis added), but the '950 Patent actually speaks in terms of the "particle size distribution of the composite material," '950 Patent at 59:34–35 (emphasis added). With respect to silicon (as opposed to composites), the '950 Patent defines sizes (as opposed to size distributions) that are preferred for energy storage applications. *Id.* at 3:25–54 ("the preferred silicon size is less than 1 micron"). The point made in the Court's previous ruling was that the PowerPoint slides at issue reported numerical figures falling within the values set forth in the '950 Patent, provided no information

23

5

10

11

12

13

14

15

16

17

18

19

20

21

22

concerning the methods employed in generating the samples, and simply reflected the practice of the invention described in the patent, as opposed to any trade secret. See Order at 14 (docket no. 83). Swapping "composite" for "silicon" before the words "particle size distribution" in the fifth substantive row of the table on pages 13 and 14 of the Order does not alter the analysis. When the particle size distributions in the table are compared with those set forth in the PowerPoint slide that Group14's expert cites as containing trade secrets (G14 0007058), the Court's original conclusion remains valid; the average (Dv,50) particle sizes in the PowerPoint slide at issue (7.67–8.83 µm) are well within the composite particle size distributions disclosed in the '950 Patent and summarized in the Court's previous Order (5 nm $-20 \mu m$). Moreover, the '950 Patent itself treats the preferred silicon size for energy storage applications as a dimension known in the art, as opposed to a trade secret, and it lauds its invention as an improvement over "[c]urrent technologies for achieving nano sized silicons," which "are expensive and difficult to scale." See '950 Patent at 3:25-56. Group14's expert also challenges the Court's observation that "Group 14 makes no argument that the test products discussed in the comparison [PowerPoint] slides were not embodiments of the invention disclosed in the '950 Patent." See Martin Decl. at ¶ 131 (docket no. 99-4) (quoting Order at 14 (docket no. 83)). Rather than offer any evidence indicating that the samples at issue were a "next generation" composite or a different substance than what was claimed and protected by the '950 Patent, Group 14's expert has speculated as follows:

Technological advancements are nearly always incremental steps built upon preexisting information. But, it is the advancement that is the difference not the similarities. In my opinion, the forward-looking question of whether the '950 patent disclosed Group14's advanced CVI-based Si-C composite materials with predominantly, nearly exclusively, or exclusively "small" Si is resoundingly no. In my opinion, the backward facing question of whether those materials may also rely on disclosures of the '950 patent is the incorrect inquiry. Accordingly, in my opinion, the Court erred in failing to recognize the critical technical advancement associated with Group14's CVI-based Si-C composite materials with predominantly, nearly exclusively, or exclusively "small" Si that it shared with Nexeon.

<u>Id.</u> Certainly, Group14 might have made advancements beyond what was disclosed in the '950 Patent (and related applications), but the record does not contain any assertion by Group14 that the Materials sent to Nexeon while the NDA was in effect were outside the scope of the '950 Patent. As indicated in the Court's earlier Order, "[t]o the extent that Nexeon actually practiced Group14's invention without authorization, Group14's remedy lies within the statutes and jurisprudence governing patents, as opposed to trade secret law." Order at 24 (docket no. 83).

1	
2	
3	
4	
5	
6	
7	
8	
9	

Item	PowerPoint Slides Cited by Group14's Expert ²¹	Court's Ruling Rejecting Contention that Cited PowerPoint Slides Contain Trade Secrets ²²
F	G14_0001418 at Slides 8 & 36 (p. 95 at ¶ 134)	Order at 16–17 & 20–21 ²⁸ (citing docket no. 70 at 39 (G14_0001418 at Slides 8 & 36))
G	G14_0001409 (p. 100 at ¶ 143)	Order at 20 (citing docket no. 70 at 42 (G14_0001409))
Н	G14_0001395 (p. 104 at ¶ 146)	Order at 20 (citing docket no. 70 at 40 (G14_0001395))
I	G14_0001396 (p. 107 at ¶ 153)	Order at 20 (citing docket no. 70 at 41 (G14_0001396))

10

11

1314

15

16

18

17

19

20

21

23

22

²⁸ The diagrams in Slides 8 and 36 of the deck Bates stamped G14 0001418 were previously found to "lack the detail necessary to view them as trade secrets, and . . . [to] merely . . . offer in illustrative form the steps described in the '950 and '103 Patents." See Order at 20 (docket no. 83). Group14's expert now accuses Nexeon of copying the first of these diagrams (Slide 8) and presenting it in the SUNRISE application. <u>See</u> Martin Decl. at ¶ 135 (docket no. 99-4). Group 14's expert asserts that Nexeon would not have plagiarized the diagram if it "was fully competent on its own to design such a system," and that, had Nexeon independently developed an approach, "the diagram would have been completely different." *Id.* at ¶ 136. This analysis is unpersuasive for the following four reasons. First, any copying would not itself demonstrate that Slide 8 revealed any trade secret. In asserting otherwise, Group14's expert has put the proverbial cart before the horse. Second, the process shown in Slide 8 is the invention disclosed in the '103 Patent, and Nexeon was not prevented by the DTSA, the UTSA, or the NDA from pictorially communicating what the patent or the related published application explained in words. Third, Group14's expert's speculation that an independently-developed design would correspond to a completely different diagram ignores the state of the art and common sense. At the time Nexeon applied to fund Project SUNRISE (i.e., in October 2017), Group 14's CVI process had been made public through the two published applications related to the '950 Patent, and a person of ordinary skill in the art, using what was then publicly known, but operating independently of the information that Group14 provided to Nexeon pursuant to the NDA, would likely have drawn something similar or perhaps identical to Slide 8. Fourth, Group 14's expert provides no basis for attacking the competence of individuals at Nexeon, the principals of which (Brown, Macklin, and Friend) all have doctorate degrees. See Exs. 8 & 10 to Lindberg Decl. (docket nos. 86-8 & 86-10); see also Order at 23 (docket no. 83) (citing Ex. 17 to Pivovar Decl. (docket no. 70-8)).

1	
2	
3	
4	_
5	
6	_
7	
8	
9	
10	

Item	PowerPoint Slides Cited by Group14's Expert ²¹	Court's Ruling Rejecting Contention that Cited PowerPoint Slides Contain Trade Secrets ²²
J	G14_0024051 at Slide 26 ²⁹ (p. 109 at ¶ 156)	Order at 15–16 (citing docket no. 70 at 27 (G14_0024051 at Slide 26))
K	G14_0001418 at Slide 25 (p. 110 at ¶ 158)	Order at 16–17 & 20 (citing docket no. 70 at 35 (G14_0001418 at Slide 25))
L	G14_0001418 at Slides 27 & 28 (p. 111 at ¶ 160)	Order at 16–17 & 20 (citing docket no. 70 at 36–37 (G14_0001418 at Slides 27 & 28))
M	G14_0001418 at Slide 32 (p. 112 at ¶ 162)	Order at 16–17 (citing docket no. 70 at 38 (G14_0001418 at Slide 32))

12 13

14

15

16

17

18 19

2021

22

23

²⁹ Nexeon asserts that Slide 26 was not provided by Group 14 in the form reproduced in its expert's declaration. According to an email chain involving Group14 CTO Costantino, Group14 Vice President Timmons, and Avery Sakshaug (one of the inventors listed on Group14's '950 and '103 Patents), Slide 26 was edited, and the "other plot" was removed from it, before the parties' two-day meeting, which was conducted in Seattle in June 2017 ("Seattle Summit"). Ex. C to Lindberg Supp. Decl. (docket no. 123). Nexeon's attorney has averred that, "[a]fter a diligent search, no version of this [PowerPoint] presentation showing two charts on slide 26 were [sic] found in Nexeon's possession." Lindberg Supp. Decl. at ¶ 4 (docket no. 118). Group14's expert represented in his declaration that his "understanding" is that Group14 shared the two-plot version of Slide 26 with Nexeon during the Seattle Summit. Martin Decl. at ¶ 156 (docket no. 99-4). Group 14's expert does not, however, have personal knowledge on the subject. Nevertheless, the Court concludes that a dispute of fact exists concerning whether Nexeon received the version of Slide 26 that appears in Group 14's expert's declaration. Assuming, however, that the two-plot form of Slide 26 was conveyed to Nexeon, the dispositive issue is whether it contains any trade secret. Nexeon asserts that it does not, but merely cross-references its analysis relating to alleged trade secrets B and C. See Ex. B to Lindberg Supp. Decl. (docket no. 122 at 8). Group 14's expert offers no explanation. He acknowledges that "the general concept that porous carbon scaffolds can be filled with Si by CVI was disclosed in Group14 patent documents," but then baldly asserts that "the data and teachings of this slide," which has question marks after every numerical value and almost all labels, are trade secrets because he did "not recall seeing any experimental data that was presented in the same format or [was] equivalently disclose[d] in another format" in Group14's patent documents. Martin Decl. at ¶ 157 (docket no. 99-4). He maintains as a mystery, though, exactly what "the data and teachings" of Slide 26 are. Group14 has not made any showing that Slide 26 describes a trade secret.

1
2
3
4
5
6

Item	PowerPoint Slides Cited by Group14's Expert ²¹	Court's Ruling Rejecting Contention that Cited PowerPoint Slides Contain Trade Secrets ²²
N	G14_0001418 at Slides 34 & 35 (pp. 113–14 at ¶ 164)	Order at 20 & n.16 (citing docket no. 70 at 43 (G14_0001418 at Slides 34 & 35))
O	G14_0001411 (p. 115 at ¶ 166)	Order at 21–22 ³⁰ (citing docket no. 70 at 45 (G14_0001411))

Group14's "fifth" supplemental response does not present anything new, and the Court remains convinced that (i) many of Group14's alleged trade secrets (now labeled A–O) were disclosed in the '950 Patent, the '103 Patent, related published applications, and/or materials submitted to the PTO during the prosecution of the '103 Patent, see Order at 3 n.1 (docket no. 83) ("Publication of information in a patent or a patent application eliminates any trade secrecy." (citing inter alia Attia v. Google LLC, 983 F.3d 420 (9th Cir. 2020))); and (ii) an overlapping subset of alleged trade secrets A–O relate to (in Nexeon's apropos words) "very high level" PowerPoint slides, diagrams, process parameters, and other information that lack the particulars necessary to qualify as trade

³⁰ To support his opinion that "[k]ey vendors for pilot scale" constitutes a trade secret, Group14's expert has relied on the same PowerPoint slide (G14_0001411) deemed insufficient in the Court's earlier ruling, <u>see</u> Order at 21–22 (docket no. 83), and has asserted that the information in the slide "was not disclosed or readily ascertainable <u>from the Group14 patent disclosures</u>," <u>see</u> Martin at ¶ 167 (docket no. 99-4) (emphasis added). The relevant question, however, is not whether the vendors were disclosed in or are readily ascertainable from a patent, but rather whether they could be easily identified from publicly-available databases, by using Internet search engines, through word-of-mouth means, or via other standard ways of locating companies, consultants, and/or contractors. Group14's expert has provided no basis for questioning the Court's previous conclusion that Group14 has not made the showing necessary to attach trade secret protection to its lists of customers, investors, suppliers, and/or vendors. <u>See</u> Order at 21–22 (docket no. 83).

1 secrets, see id. at 5–6 (citing M/A-COM Tech. Sols., Inc. v. Litrinium, Inc., No. SA CV 19-220, 2019 WL 4284523 (C.D. Cal. June 11, 2019)). The Court therefore concludes 3 that, to the extent premised on the existence of a trade secret, Group 14's breach-of-4 contract claim lacks merit. The Court's ruling that no trade secret has been identified 5 also constitutes a separate basis for dismissing Group14's DTSA and UTSA claims.³¹ See Zunum Aero, Inc. v. Boeing Co., No. C21-896, 2024 WL 3822780, at *5 (W.D. 6 7 Wash. Aug. 14, 2024) ("The first element of a trade secret misappropriation claim 8 requires the plaintiff to establish that it 'possessed a trade secret.'" (quoting *InteliClear*, 9 LLC v. ETC Global Holdings, Inc., 978 F.3d 653, 657 (9th Cir. 2020)), appeal filed, 10 No. 24-5212 (9th Cir. Aug. 26, 2024). 11

Group14 has now had three or more bites at the proverbial apple, and the Court has been more than indulgent. The Court has devoted significant time, energy, and resources to this matter, having previously issued a 27-page Order, roughly half of which addressed the parties' discovery disputes centered around Group14's duty to identify its trade secrets, <u>see</u> Order at 14–27 (docket no. 56), and a 25-page Order devoted solely to the subject of whether Group14 had described its trade secrets with the "reasonable specificity" necessary for Nexeon to mount a defense, <u>see</u> Order (docket no. 83). The Court now enters this even lengthier Order, being fully satisfied that Group14 has had

1920

21

22

12

13

14

15

16

17

³¹ Given the absence of any trade secret, the Court has not sealed or redacted this Order despite having quoted, paraphrased, or discussed portions of sealed documents. The parties were forewarned multiple times that relevant verbiage within sealed materials might be made publicly available by inclusion in an unsealed order. <u>See Minute Order at ¶ 1 (docket no. 82)</u>; Minute Order at ¶ 1 (docket no. 128); Minute Order at ¶ 1 (docket no. 132).

ample opportunity to reveal its cards, but it has failed to do so either because it wishes to 2 continue hiding them or because the cards have no showdown value. In moving for summary judgment, Nexeon has called Group 14's apparent bluff, and the moment has 3 4 arrived for the Court to throw Group14's hand into the muck. 5 Conclusion For the foregoing reasons, the Court ORDERS: 6 7 **(1)** Defendant Nexeon's motion for summary judgment, docket no. 85, is 8 GRANTED, and plaintiff Group 14's DTSA, UTSA, unjust-enrichment, and breach-of-9 contract claims are DISMISSED with prejudice. 10 (2) The parties are DIRECTED to meet and confer and to file, within twentyone (21) days of the date of this Order, a joint status report advising whether Nexeon 12 intends to pursue its counterclaim for tortious interference with business expectancy, 13 outlining what additional discovery, if any, is required with respect to Nexeon's 14 counterclaim, indicating how long a trial on the counterclaim is anticipated to last, and 15 proposing a trial date and related deadlines. 16 The Clerk is directed to send a copy of this Order to all counsel of record. (3) 17 IT IS SO ORDERED. 18 Dated this 18th day of September, 2024. 19 homes & Felle 20 Thomas S. Zilly 21

United States District Judge

ORDER - 33

22

23